

NYSERDA Water Furnace Geothermal Heat Pumps Symphony Time Series

April 2015 – November 2016

Data Dictionary

All numeric values are calculated as an average across a 15-minute interval

Data Label	Data Type	Data Description
Date	Date	Date (mm/dd/yyyy)
Time	Time	Local Time (hh:mm)
Site Identification	Text	Site identification number (EX. S10 = Site 10)
Compressor Speed	Numeric	Unit compressor speed (0-12)
Fan Speed	Numeric	Unit fan speed (0-12)
Primary Compressor Runtime	Numeric	Fractional runtime for primary compressor within the interval. A value of 1 would indicate that the compressor ran for 100% of the interval.
Secondary Compressor Runtime	Numeric	Fractional runtime for primary compressor within the interval. A value of 1 would indicate that the compressor ran for 100% of the interval. This data value only has meaning for dual compressor units.
Primary Heating Coil Runtime	Numeric	Fractional runtime for first stage of resistance heat within the interval. A value of 1 would indicate that the heat ran for 100% of the interval.
Secondary Heating Coil Runtime	Numeric	Fractional runtime for second stage of resistance heat within the interval. A value of 1 would indicate that the heat ran for 100% of the interval.
Fan	Numeric	Fractional runtime for indoor fan within the interval. A value of 1 would indicate that the fan ran for 100% of the interval.
Operating Mode	Numeric	Indicates a status to whether unit is operating in cooling (=0) or heating mode (=1). Fractions represent the fraction of

		the data interval in each operating mode.
Auxiliary Power Supplied for Heating Coils	Numeric	Power input for electric resistance heating coils (Watts)
Compressor Power	Numeric	Power input to the compressor(s) (Watts)
Entering Loop Field Water Temperature	Numeric	Entering water temperature into heat pump unit (°F)
Fan Power	Numeric	Power input for indoor fan (Watts)
Heat of Extraction and Rejection	Numeric	Ground loop heat extraction or rejection. This data value is used in conjunction with the Operating Mode value that indicates heating (1) or cooling (0) mode. Heat of Extraction and Rejection is heat extraction rate in heating mode and heat rejection rate in cooling mode (Btu/h).
Leaving Air Temperature	Numeric	Leaving air temperature or supply temperature from the unit in degrees Fahrenheit (°F)
Leaving Loop Field Water Temperature	Numeric	Leaving water temperature from heat pump unit in degrees Fahrenheit (°F)
Pump Power	Numeric	Power input to loop pump (Watts)
Total Unit Power	Numeric	Total System Power = Auxiliary Power Supplied for Heating Coils + Compressor Power + Fan Power + Pump Power (Watts)
Room Air Temperature	Numeric	Room air temperature measured at thermostat in degrees Fahrenheit (°F)
Loop Pump Speed	Numeric	Loop pump speed as percent of total pump capacity (%)
Loop Flow Rate	Numeric	Loop flow rate in gallons per minute (gpm)
Ambient Outdoor Temperature	Numeric	Outdoor temperature sourced from nearest Weather Underground airport code in degrees Fahrenheit (°F). Values of -99 and -9999 represent missing data. This data is not from the Symphony monitoring system.
Hot Water Pump Runtime	Numeric	Fractional runtime for hot water pump within the interval. A value of 1 would indicate that the pump ran for 100% of the interval.